IN THE CLAIMS:

1. (Previously Presented) A method of inspecting a coupled state of hybridized target DNA on a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the DNA probe cells being of a microscopic dimensional size D, where DNA probes are arranged on the DNA chip in a predetermined array, comprising:

after sample exposure/coupling, simultaneously irradiating a plurality of the DNA probe cells of said DNA chip with a corresponding plurality of multi-spot excitation lights through an objective lens so as to generate fluorescent lights from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of DNA probe cells;

separating said generated fluorescent lights from said plurality of multi-spot excitation lights into separate fluorescent lights along separate optical paths;

detecting said separate fluorescent lights simultaneously with a plurality of sensors, with each sensor corresponding to each of said DNA probe cells irradiated, so as to catalog positions and intensities of detected fluorescent lights which are representative of a coupled state of the hybridized target DNA on said DNA chip.

2. (Previously presented) The method as claimed in Claim 1, wherein said plurality of multi-spot excitation lights are arranged in a 1-dimensional or 2-dimensional configuration.

3. (Previously Presented) The method as claimed in Claim 1, comprising:

arranging said plurality of multi-spot excitation lights irradiated onto said DNA chip on a straight line with a spacing of kd with reference to a spot diameter d and an integer k; and

repeating an operation in sequence k times, said operation being an operation where, after said irradiation with said plurality of multi-spot excitation lights has been performed, said plurality of multi-spot excitation lights are displaced in substantially a direction of said straight line by substantially d and said irradiation is performed again; and thereby

executing said inspecting substantially in said straight line direction; and

displacing said DNA chip and said objective lens relatively at least in a direction substantially perpendicular to said straight line direction; and thereby

inspecting a desired 2-dimensional area on said DNA chip.

4. (Previously presented) The method as claimed in Claim 1, comprising providing fluorescent light detection deflecting means within said separate optical paths so that said generated fluorescent lights are synchronized with displacement of said plurality of multi-spot excitation lights and come onto substantially the same location on light-receiving apertures.

5. (Previously presented) The method as claimed in Claim 4, wherein said fluorescent light detection deflecting means includes a wavelength selection beam splitter for permitting said plurality of multi-spot excitation lights to pass therethrough and causing said generated fluorescent lights to be reflected.

6. (Previously presented) The method as claimed in Claim 1, comprising providing a filter within a fluorescent light detecting optical path isolated from an excitation optical path, said filter permitting only said generated fluorescent lights to pass there-through while light-shielding said plurality of multi-spot excitation lights.

7. (Previously presented) The method as claimed in Claim 1, comprising forming said plurality of multi-spot excitation lights by using a plurality of laser light-sources.

8. (Previously presented) The method as claimed in Claim 7, wherein said plurality of multi-spot excitation lights are obtained by:

guiding, into optical fibers, lights emitted from said plurality of laser light-sources; and causing said lights to be emitted from light-emitting ends of said optical fibers, said light-emitting ends being aligned with M desired pitches.

9. (Previously presented) The method as claimed in Claim 1, wherein said plurality of excitation lights include a plurality of different wavelengths, and the method comprising distinguishing ones of the DNA probe cells as different targets on said DNA chip, where a plurality of fluorescent materials responsive to ones of the plurality of different wavelengths are used to distinguish a plurality of different targets.

10. (Previously presented) The method as claimed in Claim 9, comprising:

performing simultaneous irradiation with said plurality of multi-spot excitation lights including said plurality of different wavelengths; and thereby

distinguishing said different targets on said DNA chip so as to simultaneously detect said different targets in accordance with said plurality of fluorescent materials.

11. (Previously presented) The method as claimed in Claim 1, comprising:

directing a second light with an oblique incident angle on an inspection plane of said DNA chip;

detecting a reflection position at which said second light is reflected on said inspection plane; and

controlling a relative distance between said inspection plane and said objective lens in accordance with a result of detection of said reflection position.

12.-17. (Canceled)

18. (Currently Amended) A method of inspecting a coupled state of hybridized target DNA on a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the DNA probe cells being of a microscopic dimensional size D, where DNA probes are arranged on the DNA chip in a predetermined array, comprising:

branching a laser beam so as to form eight or more beams, said laser beam being emitted from at least one laser light-source;

after sample exposure/coupling, simultaneously irradiating a corresponding eight or more of the DNA probe cells on an inspection plane of a DNA chip with said eight or more beams, respectively, so as to generate fluorescent lights from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of DNA probe cells;

separating fluorescent lights emitted from irradiated ones of the DNA probe cells of said DNA chip, from reflected lights of said eight or more beams;

detecting said separated fluorescent lights simultaneously with a plurality of sensors, each sensor corresponding to each ~~of~~ irradiated said DNA probe cell, respectively; and ~~cells irradiated; and~~

getting information from said DNA chip by cataloging position and intensities of detected fluorescent lights which are representative of a coupled state of the hybridized target DNA on said DNA chip.

19. (Currently Amended) A method of inspecting a coupled state of hybridized target DNA on a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the DNA probe cells being of a microscopic dimensional size D, where DNA probes are arranged on the DNA chip in a predetermined array, comprising:

branching a laser beam into a plurality of beams having substantially the same intensity, said laser beam being emitted from at least one laser light-source;

after sample exposure/coupling, simultaneously projecting said plurality of beams onto a corresponding plurality of the DNA probe cells on an inspection plane of the DNA chip through a projection optical unit, so as to generate fluorescent lights

from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of DNA probe cells;

detecting, through an imaging optical unit, images of fluorescent lights emitted from irradiated ones of the DNA probe cells of said DNA chip simultaneously with a plurality of sensors, each sensor corresponding to each ~~of~~ irradiated said DNA probe cell, respectively; and ~~cells irradiated; and~~

getting information from said DNA chip by cataloging position and intensities of detected fluorescent lights concerning a coupled state of the hybridized target DNA on said DNA chip.

20. (Previously presented) The method as claimed in Claim 19, wherein said DNA chip is inspected by irradiating said DNA chip with said beams while displacing said DNA chip and said beams relatively in a 2-dimensional manner.

21. (Previously presented) The method as claimed in Claim 19, wherein said DNA chip is irradiated with said beams arranged in 2-dimensions.

22. (Currently Amended) A method of inspecting a coupled state of hybridized target DNA on a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the DNA probe cells being of a microscopic dimensional size D, where DNA probes are arranged on the DNA chip in a predetermined array, comprising:

after sample exposure/coupling, simultaneously irradiating a plurality of the DNA probe cells of said DNA chip with a corresponding plurality of multi-spot

excitation lights so as to emit fluorescent lights from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of DNA probe cells;

separating said fluorescent lights emitted from ones of the DNA probe cells of said DNA chip, from said plurality of multi-spot excitation lights:

detecting images of said fluorescent lights simultaneously by use of a plurality of light detecting devices capable of executing a photon counting, each sensor corresponding to each ~~of~~ irradiated said DNA probe cell, respectively; ~~cells irradiated;~~

photon-counting, individually, each ~~of~~ photon signal ~~signals~~ obtained from said respective light detecting devices;

storing, individually, data of photon-counted numbers Npm detected by said respective light detecting devices;

changing positions of said plurality of multi-spot excitation lights and a position of said DNA chip relatively, so as to store data of said photon-counted numbers from said respective light detecting devices;

collecting stored data on said photon-counted numbers over desired locations ~~a desired range~~ on said DNA chip;

constructing a fluorescent light image from said collected data; and

deriving information for said DNA chip from said collected data, ~~information on said constructed fluorescent light image,~~ by cataloging positions and intensities of detected fluorescent lights which are representative of a coupled state of the hybridized target DNA on said DNA chip.

23. (Currently Amended) A method of inspecting a coupled state of hybridized target DNA on a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the DNA probe cells being of a microscopic dimensional size D, where DNA probes are arranged on the DNA chip in a predetermined array, comprising:

after sample exposure/coupling, simultaneously irradiating a plurality of the DNA probe cells of said DNA chip with a sheet-shaped excitation light so as to emit fluorescent lights from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of DNA probe cells;

separating said fluorescent lights emitted from ones of the DNA probe cells, from said sheet-shaped excitation lights; detecting images of said fluorescent lights simultaneously by use of a plurality of light detecting devices capable of executing a photon counting, each sensor corresponding to each ~~of~~ irradiated said DNA probe cell, respectively; ~~cells irradiated;~~

photon-counting, individually, each ~~of~~ photon signal ~~signals~~ obtained from said respective light detecting devices;

storing, individually, data of photon-counted numbers Npm detected by said respective light detecting devices;

changing positions of irradiation areas and a position of said DNA chip relatively, so as to store in sequence data of said photon-counted numbers from said respective light detecting devices; collecting stored data on said photon-counted numbers over desired locations ~~a desired range~~ on said DNA chip; constructing a fluorescent light image from said collected data, and

deriving information for said DNA chip <u>from said collected data.</u> ~~in accordance with information on said constructed fluorescent light image,~~ by cataloging positions and intensities of detected fluorescent lights which are representative of a coupled state of the hybridized target DNA on said DNA chip.

24. (Previously presented) The method as claimed in Claim 22, wherein said multi-spot excitation lights include 10 or more microscopic spots.

25. (Previously presented) The method as claimed in Claim 24, wherein said multi-spot excitation lights include 50 or more microscopic spots.

26. (Previously presented) The method as claimed in Claim 24, wherein said microscopic spots are arranged on a 1-dimensional straight line or a 2-dimensional array.

27. (Currently Amended) The method as claimed in <u>Claim 22,</u> ~~Claim 22 or 23,~~ wherein said multi-spot excitation lights ~~or said sheet shaped excitation lights~~ are colored lights having 2 or more wavelengths.

28. (Currently Amended) A method of inspecting a coupled state of hybridized target DNA on a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the DNA probe cells being of a microscopic dimensional size D, where DNA

probes are arranged on the DNA chip in a predetermined array, by detecting fluorescent lights generated from a fluorescent material on a DNA sample, comprising:

after sample exposure/coupling, simultaneously irradiating a plurality of the DNA probe cells of said DNA chip with a corresponding plurality of multi-spot excitation lights or a sheet-shaped excitation light so as to generate fluorescent lights from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of DNA probe cells, separating said fluorescent lights from said plurality of multi-spot excitation lights irradiated onto said DNA sample, said multi-spot excitation lights including M microscopic spots, where M is an integer;

detecting fluorescent light images from said fluorescent lights emitted from said DNA chip with the use of a plurality of M light detecting devices in an average pixel detecting time of (300 μsec/M) or less, each light detecting device corresponding to each ~~of~~ irradiated said DNA probe cell, respectively; ~~cells irradiated;~~

storing, individually, signals obtained from said respective light detecting devices:

changing, relatively, positions of said multi-spot excitation lights or said sheet-shaped excitation light and a position of said DNA chip so as to store said signals in sequence;

collecting said stored signals over desired locations ~~a desired range~~ on said DNA chip;

constructing a fluorescent light image from said collected and stored signals; and deriving information on ~~from~~ said DNA chip from said collected data, ~~in accordance with information on said constructed fluorescent light image,~~ by

cataloging positions and intensities of detected fluorescent lights which are representative of a coupled state of the hybridized target DNA on said DNA chip.

29. (Currently Amended) A method of inspecting a coupled state of hybridized target DNA on a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the DNA probe cells being of a microscopic dimensional size D, where DNA probes are arranged on the DNA chip in a predetermined array, by detecting fluorescent lights generated from a fluorescent material on a DNA sample, comprising:

after sample exposure/coupling, simultaneously irradiating a plurality of the DNA probe cells of said DNA chip with a corresponding plurality of multi-spot excitation lights or a sheet-shaped excitation light so as to generate fluorescent lights from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of DNA probe cells, separating said fluorescent lights from said plurality of multi-spot excitation lights irradiated onto said DNA sample, said multi-spot excitation lights including M microscopic spots having a diameter or focus-achieving width which is smaller than 3 μm and larger than 0.3 μm, said sheet-shaped excitation lights having a width that is smaller than 3 μm and larger than 0.3 μm, where M is the number of microscopic spots;

detecting fluorescent light images emitted from said DNA chip simultaneously with use of a plurality of light detecting devices, each sensor corresponding to each ~~of~~ <u>irradiated</u> said DNA probe <u>cell, respectively;</u> ~~cells irradiated;~~

storing, individually, signals obtained from said respective light detecting devices; changing, relatively, positions of said multi-spot excitation lights or said

sheet-shaped excitation light and a position of said DNA chip so as to store said signals in sequence;

collecting said stored signals over desired locations ~~a desired range~~ on said DNA chip; constructing a fluorescent light image from said collected signals; and

deriving information for said DNA chip from said collected data, ~~in accordance with information on said constructed fluorescent light image,~~ by cataloging positions and intensities of detected fluorescent lights which are representative of a coupled state of the hybridized target DNA on said DNA chip.

30.-35. (Canceled)

36. (Previously Presented) The method as claimed in Claim 1, wherein said plurality of the DNA probe cells of said DNA chip are simultaneously irradiated with the corresponding plurality of multi-spot excitation lights for a time ?t that is longer than a fluorescent light attenuation time.

37. (Previously Presented) The method as claimed in Claim 1, wherein each light of said multi-spot excitation lights having a spot diameter d that is smaller than the dimensional size D of a DNA probe cell that it irradiates.

38. (Previously Presented) The method as claimed in Claim 18, wherein said eight or more of the DNA probe cells are simultaneously irradiated with said eight or more beams, respectively, for a time Δt that is longer than a fluorescent light attenuation time.

39. (Previously Presented) The method as claimed in Claim 18, wherein each beam of said eight or more beams having a spot diameter d that is smaller than the dimensional size D of a DNA probe cell that it irradiates.

40. (Previously Presented) The method as claimed in Claim 19, wherein said plurality of beams are simultaneously projected for a time ?t that is longer than a fluorescent light attenuation time.

41. (Previously Presented) The method as claimed in Claim 19, wherein each beam having a spot diameter d that is smaller than the dimensional size D of a DNA probe cell that it irradiates.

42. (Previously Presented) The method as claimed in Claim 22, wherein the plurality of the DNA probe cells are irradiated for a time ?t that is longer than a fluorescent light attenuation time.

43. (Previously Presented) The method as claimed in Claim 22, wherein each light of said multi-spot excitation lights having a spot diameter d that is smaller than the dimensional size D of a DNA probe cell that it irradiates.

44. (Previously Presented) The method as claimed in Claim 23, wherein the plurality of the DNA probe cells are simultaneously irradiated for a time ?t that is longer than a fluorescent light attenuation time.

45. (Previously Presented) The method as claimed in Claim 28, wherein the plurality of the DNA probe cells excitation lights are simultaneously irradiated for a time ?t that is longer than a fluorescent light attenuation time.

46. (Previously Presented) The method as claimed in Claim 29, wherein the plurality of the DNA probe cells are simultaneously irradiated for a time ?t that is longer than a fluorescent light attenuation time.

47. (New) The method as claimed in Claim 23, wherein said sheet-shaped excitation lights are colored lights having 2 or more wavelengths.

Claim 1, line 13, inquiry was made as to whether Applicant's invention performed "detecting said separate fluorescent lights **simultaneously** with a plurality of sensors"? The answer is yes. Attention is again directed to Applicant's FIG. 1 as one example. Multi-spot excitation lights 11M coming from a microlens array 14 impinge upon DNA chip 2. Fluorescently labeled target DNA within cells (see Applicant's FIG. 2) generate fluorescent light when struck by excitation light. The emitted fluorescent lights travel through the objective lens 16, and are reflected by beam splitter (mirror) 30 to ultimately impinge on photomultiplier tube 33. <u>It is well known in the electronics art that a photomultiplier tube can capture (i.e., detect) a plurality of pixels simultanteously, and then read out pixel data by, for example, sequential scanning</u>. Accordingly, it is respectfully submitted that Claim 1, line 13 is correct as written.

Inquiry was made as to whether Claim 4 limitations regarding "deflecting", "synchronized" and "displacement" contradicted or conflicted with Claim 1's "simultaneously" feature. The answer is no. More particularly, as discussed in the immediately-above paragraph, Applicant's photomultiplier tube 33 can capture a plurality of pixels simultaneously. However, not all cells within the FIG. 2 DNA chip 2 are detected at one (i.e., a single) instance of time. Instead, a first predetermined plurality (e.g., 5 cells) are simultaneously detected, then a second plurality (e.g., 5 cells) are simultaneously detected, etc., etc., until a desired area of the DNA chip 2 has been detected.

As one example (FIG. 2), cells 201, 202, 203, ...might be detected in a first operation, the arrangement adjusted, and then cells 211, 212, 213... might be detected in a second operation. The important point to note with respect to the

FIG. 2 example, is that Applicant's arrangement steps through a series of "simultaneous" scans over time. That is, there is "simultaneous" scanning of a given plurality of cells, then "deflecting", "synchronizing" and/or "displacement" adjustment to target a next plurality of cells, followed by a next "simultaneous" scanning, then "deflecting", "synchronizing" and/or "displacement" adjustment, etc., etc. Accordingly, all these operations are natural within Applicant's invention, and thus Claim 4 does not contradict or conflict and is correct as written.

Next, inquiry was made as to whether there was an inaccuracy or conflict within claim 5, regarding the "fluorescent light detection **deflecting** means" also "**reflecting**"? The answer is that there is no inaccuracy or conflict. As explanation, an example of Applicant's "fluorescent light detection deflecting means" includes items 4 and 30 in FIG. 1, and piezo device 301 in FIG. 5. As shown in FIG. 7, Applicant's beam splitter (mirror) 301 is rotatable to varying positions to deflect reflected light to desired positions onto a detector arrangement. That is, Applicant's beam splitter 301 is rotatably adjustable, and thus has the multiple functions of "deflecting" and "reflecting". Accordingly, it is respectfully submitted that Claim 5 does not conflict, and is correct as written.

Another inquiry was raised as to whether the claim 18 limitations "separating fluorescent lights emitted from irradiated ones of the DNA probe cells of said DNA chip, from **reflected lights** of said eight or more beams", should be changed to "**emitted light**"? The answer is that such claim 18 limitations are accurate as presently written. More particularly, as mentioned above, emitted fluorescent lights travel from the irradiated DNA probe cells, through the objective lens 16, and are reflected by beam splitter (mirror) 30 to ultimately impinge on photomultiplier tube 33.

In addition, some of the original excitation light reflects off of the DNA probe cells, back through the objective lens 16. A small portion of such reflected excitation light may reflect off of the beam splitter (mirror) 30, also in the direction of the photomultiplier tube 33. That is, while a goal is to design the beam splitter (mirror) 30 **NOT** to reflect excitation light, such mirror is not perfect and a finite portion of the excitation light will actually be reflected in a direction of the photomultiplier tube 33. Such excitation light will become noise unless it is removed before impinging on the tube 33. Hence, Applicant's arrangement may include, for example (FIG. 1), a filter 34 which filters out the stray excitation light. A result of the foregoing is that, it is respectfully submitted that Claim 18 is correct as written.

Inquiry was made as to the meaning of the word "ones", e.g., claim 22, lines 3-4 recites "...**ones** of the DNA probe cells being of a microscopic dimensional size D..."? Such language is attempting to avoid saying "**each** of the DNA probe cells", because "each" language has a possibility of being argued as meaning "all" of the DNA probe cells. For example, if claim 22 recited "...**each** DNA probe cell being of a microscopic dimensional size D...", then a potential infringer might make only 95% of their cells microscopic, and then argue that "each" meant "...**ALL** DNA probe cells being of a microscopic dimensional size D..." By reciting "ones", Applicant avoids such argument. In essence, "ones" can be equated to mean "more than one" or "at least some" (at least with respect to this claim 22 example, and within most (if not all) other claims). It is respectfully submitted that the "ones" claim language is correct as written within each of the claims.

Regarding the claim 22 language "photon-counting, individually, each of photon signals obtained from said respective light detecting devices", such language

was changed to "photon-counting, individually, each ~~of~~ photon signal ~~signals~~ obtained from said respective light detecting devices", per the Examiner's suggestion. Similar changes were made within claim 23.

An inquiry was raised as to whether claim 22's earlier "simultaneously irradiating" limitations and later "changing positions of said plurality of multi-spot excitation lights and a position of said DNA chip relatively" limitations contradicted or conflicted with each other? The answer is no, for the same reasons set forth above for the claim 4 limitations. Accordingly, it is respectfully submitted that the presently-mentioned claim 22 limitations are correct as written.

Regarding the claim 22 language "collecting stored data on said photon-counted numbers over a desired range on said DNA chip", such language was changed to "collecting stored data on said photon-counted numbers over desired locations ~~a desired range~~ on said DNA chip", per the Examiner's concerns. Similar changes were made within claims 23, 28 and 29.

Inquiry was made regarding Claim 22's (last paragraph) limitations of "deriving information for said DNA chip **from information on said constructed fluorescent light image**", i.e., inquiry was whether information is derived from the constructed image (as presently stated), or whether it should instead be derived from the collected "data"? (Same issue in claims 23, 28 and 29.) It is respectfully submitted that such claim limitations were accurate as previously written; however, such claims have been rewritten responsive to the inquiry because the resultant amended limitations were felt to be even broader than the prior limitations. As a result of amendment, the inquiry has been obviated.

The next inquiry concerned whether Claim 27's limitations "said sheet-shaped excitation lights" would have adequate antecedent with Claim 22? Previous multiple-dependent claim 27 (dependent on claim 22 or 23) has been subdivided into claim 27 (dependent on claim 22) and new claim 47 (dependent on claim 23), and care has been taken to insure proper antecedent usage within each such claim. As a result, such inquiry has been obviated.

Responsive to the inquiry regarding the claim 28 language "each light detecting device corresponding to each of said DNA probe cells irradiated", such language was changed to "each light detecting device corresponding to each ~~of~~ irradiated said DNA probe cell, respectively; ~~cells irradiated;~~", per the Examiner's concerns. Similar changes were made within claims 18, 19, 22, 23 and 29.

A final inquiry concerns the claim 28 limitations "detecting fluorescent light images ... **in an average pixel detecting time of (300 μsec/M) or less**," and also the first full paragraph on page 35 of the specification, i.e., the inquiry appeared to be whether apparatus could practically be built to operate at the indicated speeds? Applicant respectfully submits that such speeds are easily achievable with present technology, and that persons skilled in the art would know any number of ways using such technology to implement the invention.

Applicant and the undersigned respectfully thank the Examiner for the above inquiries and in helping further improve Applicant's claims.

Regarding all other issues from the prior Office Action, all descriptions of Applicants disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated herein by reference.

PENDING CLAIMS

At entry of this paper, Claims 1-11, 18-29 and 36-47 will be pending in the application for further consideration and examination.

RESERVATION OF RIGHTS

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer of any scope or subject matter. Further, Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, *i.e.*, Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

EXTENSIVE PROSECUTION NOTED

Applicant and the undersigned respectfully note the extensive prosecution which has been conducted to date with the present application, and thus Applicant and the undersigned respectfully request movement of the present application quickly to allowance.